THE GENESEE FARMER.

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THE GENESEE FARMER.

SATURDAY, MAY 16, 1835.

To Correspondents.

The suggestions of "*A Subscriber*" at Utica, shall be complied with when we can obtain a copy of the work to which he alludes, from which to make the extracts.

The communication of R. M. W. on "Exciting Agencies," is respectfully declined, as inappropriate to our pages.

We are also under the necessity of declining the comunication headed with the following quotation:

"Improve we these. Three *cat calls* be the bribe
Of him whose *chattering* shames the monkey tribe;
And his this *drum*, whose hoarse heroic bass
Drowns the loud clarion of the braying ass."

As also the one with the following:

"What woful stuff these madrigals would be
In some starved hackney sonnetteer or me."

"M. A." next week.

"B. S." of Nottawa, Michigan, as well as others, is informed that we have long since distributed what Gama Grass Seed we had, and none can be procured in this vicinity. He can forward the money alluded to, by mail.

The article which our friend W. W. B. requests us to copy, has not fallen under our notice.

The Cheapest Way of Farming.

To farm profitably without labor or care, would doubtless be considered by many as exceedingly desirable; but as this never has, nor ever can be accomplished, it becomes very important to know in what way we may make the nearest approach to it. In what way may we farm with the *least* labor and care, at the same time with the greatest profit?

The answer to this question must undoubtedly be, *to apply labor in such way as to produce the greatest possible result.* Now this is effected by a *thorough* system of operation, and by always raising full and heavy crops. This may readily be shown by a simple calculation. Suppose for instance that a farmer gets 25 bushels of corn from an acre by the common mode of cultivation; and that the average expense, including the rent of the land, is fifteen dollars; then if corn is worth fifty cents a bushel, he will be just paid for his labor and expense and no more. But suppose that instead of 25, the quality of the land is such as to give 50 to the acre; and considering the expense the same, (and every farmer knows that a rich mellow soil is actually much more easily tilled than a poor, hard, grassy soil;) then there will be in this case a clear profit of 25 bushels, equal to twelve and a half dollars. According to this mode of calculation it will be found, that if a farmer who has a ten acre field, raised 20 bushels to the acre from it, he sinks by it, every year, twenty-five dollars; but if another farmer raised 50 bushels to the acre on an equal quantity of land, he obtains a clear profit of one hundred and twenty-five dollars; or if he raises 100 bushels to the acre, then he will have a clear profit of three hundred and seventy-five dollars; making a difference of four hundred dollars between this and the first crop. Such a crop may appear to be an extravagant supposition; but crops much larger than even this have frequently been raised, as may be shown by a few selected instances here given, which for the sake of convenience are shown in tabular form.

Cultivators.	*Date.*	*Acres.*	*Product per acre in bush.*	*Whole Prod't.*
John Stevens, of Hoboken, N. J.	1822	1	118	118
J & M. Pratt, Madison, N. Y.	1824	1	172¼	172¼
Do. do.	1819	4	170	680
Samuel Chidsey, Cayuga co. N. Y.	1824	1	132	132
Earl Stimson, Saratoga co. N. Y.	1822	8	112	896
Wm. McClure, Allegany co. Pa.	1823	5	129	645
Joseph Evans, Washington co. Pa.	1823	5	136	680
Benj. Bartlett, Eaton, Madison co. N. Y.	1823	1	174	174
T. & H. Little, Newbury, Mass.	1822	1	116	116
Do. do.	1823	1	115	115
— Wilmarth, Taunton, Mass.	1825	1	142	142
Charles Buglow, Palmer, Mass.	1831	1	103	103
Benj. Butler, Oxford, Chenango co. N.Y.	1831	1	140	140

The corn crop of Earl Stimsom, of Galway, Saratoga county, averaged, for ten years, more than 100 bushels per acre. Most of the instances above given, are of premium crops, subjected to the examination of committees, and some were certified under oath.

Now, whatever man has once done, man may do again. The great achievements which have already been made, show what may yet be done. This is farming profitably and satisfactorily; certainly it requires far less labor and care to raise a hundred bushels from one acre of good land, than from five acres of bad. But some ask, "How are we to get a rich mellow soil,—our land is poor, hard and grassy?" This is the way. First, to make it *rich*, apply all the manure of every kind which can be had—where the soil is not too clayey, make it a frequent practice to turn under green crops, especially clover—and never suffer the soil to become in any degree exhausted by a succession of the same or similar crops, but let a constant system of rotation be pursued, as already recommended and illustrated in various parts of the past and current volume of the Gen. Farmer. Secondly, to get a *deep, mellow soil*, make use of deep ploughing; as, however, where very deep ploughing is practiced at first, more of the unproductive subsoil may be thrown up than can be rendered fertile at once by manuring, it is generally advisable to deepen the soil gradually by a yearly succession of ploughings. An ultimate depth of twelve or fifteen inches will in most cases be none too much; and to attain this, two ploughs may be used in the same field; one set for cutting a new furrow, and the other so set as to follow in this furrow to deepen it. Pursue this course a few years, and a revolution will be wrought in the products of the farm.

But there are many farmers who are ready to assent to the advantages of this thorough system, but who nevertheless declare that they have not *time* to attend to it; that they are so much hurried that they can barely get their crops in at all; and as for spending labor to improve their land and raise great crops, it's entirely out of the question. But these farmers forget the *end* of all their labor,—that it is to increase their property. They should remember that making the most *from* their farms the present year is not always making the most *of* their farms. They must not forget, (as some seem to,) that they are to cultivate their land after the present year. However great the interest on their capital may be, which they are now getting, if that capital is annually depreciating, as it too often does where this hasty, *present-profit* system is pursued, it will make but poor business at last.

If any farmer is so well off as to have more land than he can till profitably, he will not find much difficulty in reducing it to such a size that he may cultivate it well. Let this be done; let him undertake the management of no more land than he can manage well; let him always make it a point to raise large and heavy crops; and whatever the reason may be, he will find that not only his profits will increase yearly, but that his land will likewise at the same time constantly increase in value; and this will be attended with far less vexation and trouble than where the imperfect, irregular, hurrying, superficial course is pursued.

Gama Grass and Guinea Grass.

We have received two letters from gentlemen who have resided in the south, suggesting that the Gama Grass is identical with the Guinea Grass. To the first we returned a private answer; but as some other readers of our paper may have received the same impression, we think it best to reply to the second letter publicly, and to assure our correspondent that these grasses are very different and distinct.

The Guinea Grass is the *Panicum maximum*, which was first discovered on the coast of Guinea. It appears to have been accidentally introdced into Jamaica about a hundred years ago, of which the following account is given in Bryan Edward's history of the West Indies: "The seeds were brought from the coast of Guinea, as food for some birds which were presented to Mr. Ellis, Chief Justice of the Island. Fortunately the birds did not live to consume the whole stock, and the remainder being carelessly thrown into a fence, grew and flourished; and it was not long before the eagerness displayed by the cattle to reach the grass, attracted Mr. Ellis' no-

tice, and induced him to collect and propagate the seeds; which now thrive in some of the most rocky parts of the island, bestowing verdure and fertility on lands which otherwise would not be worth cultivation."

About fifty years ago, Henry Laurens, who had been President of Congress in the revolutionary war, procured seeds of the Guinea Grass, and introduced it into South Carolina. Of course, it was known in the Southern States thirty or forty years before the valuable properties of the Gama Grass were ascertained in that region.

Dr. Brown, of Natchez, who wrote an article on the Guinea Grass in 1812, for the third volume of the Memoirs of the Philadelphia Society for promoting Agriculture, says, "Bruce in his travels in Egypt and Abyssinia mentions Guinea Grass, but gives no account of its character and properties. *I have conversed with many natives of Africa, who recollect to have seen it in many parts of that continent.*" On the contrary, the Gama Grass (*Tripsacum dactyloides et monostachyon*) is decidedly a native of the United States, and has been found wild as far north as Connecticut.

It is not our intention to explain the botanical characters which distinguish two such very different genera. It will be sufficient for our purpose to point out *other* particulars in which they differ.

The Guinea Grass, though a perennial, has been frequently treated as an *annual;* and so great has been its product from seed sown in the spring, that Dr. Brown was at first satisfied that it was an annual, and especially as it yielded considerable seed. We believe the Gama Grass never produces seed the first season.

Both of these grasses are successfully transplanted; and the product of each, is surprisingly great; but the Guinea Grass at first seems to be of more rapid growth. H. Laurens says, "The *seed* sprung, and soon covered the ground with grass four feet high and upwards." J. B. Oglesby *planted* a lot with Guinea Grass "the second week in May, and began to cut it on the 20th of June, and cut it five times before the 15th of October." We shall not rely on our own experiments in this northern climate, to show how much more tardy *seedlings* of the Gama Grass are, in coming forward; but it appears that J. Magoffin of Alabama, within the 33d parallel of latitude, thought it best not to cut his seedlings till "early in September. In the *next season*, however, he says, "By the first of May, it was four feet in height."

He also appears to be acquainted with the Guinea Grass, and aware of the difference between the two. He says of the Gama Grass, "Among the citizens of many of the *South American* States, it is held in an estimation equal to the Guinea Grass of the West Indies, but is certainly *far superior in value.*"

By a certificate that accompanies Dr. Brown's communication, it appears that the roots of the Guinea Grass, were several times killed in winter by the cold, even in that southern climate. The Gama Grass is hardy in this district.

We notice only one more point of difference. According to Dr. Brown the Guinea Grass drops its seed "during the months of September and October." Of the Gama Grass, J. Magoffin says, "The mass of leaves may be cut immediately *after the seed is all gathered*, say by the middle of June."

A Curiosity.

Extract of a letter from a traveler, dated April 27, 1835:—"When in Newark (Wayne county) a curiosity was exhibited to me, in a block from a white oak tree, which grew on the farm of Capt. Perine, in the town of Lyons. The block was taken from the center of a tree 4½ feet in diameter, and in the block were the marks of an axe or a similar edged tool. It seems that when the tree was but a sapling it was cut half off on one side. From the cutting to the out side of the tree were 460 grains, which show that as many years have elapsed since the unknown chopper performed his work. I am not antiquary enough to arrive at any satisfactory conclusion in reference to this block. The tree was sawed into 70 foot plank for boat use, and was worked into a boat now building by James P. Bartle at Newark. The block above mentioned is now at the Newark Coffee House, kept by Gen. V. G. Barney."

Peach Trees Killed.

A subscriber at Middle Haddam, (Conn.) in a letter of the 28th ult. says:—"The severe frosts that we had here the forepart of January last, (thermometer at this place 23½° below zero,) killed almost all my Peach Trees. I have been examining them this day, and by their appearance, think I shall not have a peach blossom this season."

Inquiry.

I wish to inquire of the correspondents of the Farmer, whether plums and cherries will answer a good purpose, grafted into the stocks of the apple tree, (young roots,) and transplanted the same as young grafted apple trees in a nursery.

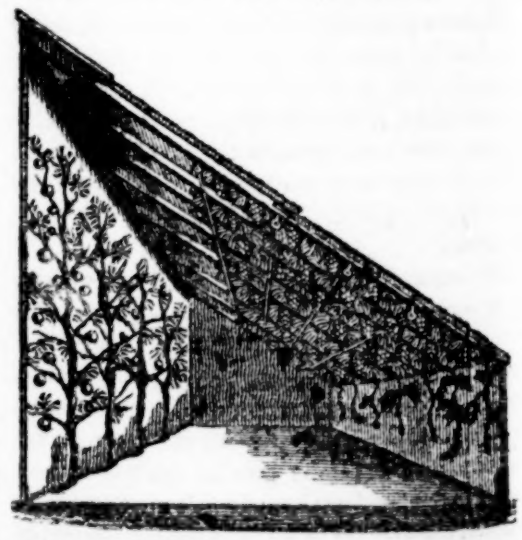
A Subscriber.

Culture of the Grape.

We have, among our subscribers, many who delight in the grape, and who are desirous of knowing the best and cheapest methods of producing it in perfection. It is in compliance with the wishes of some of these, that we write the following article, though not exactly coming within the plan of our work.

It is known that the ordinary methods of raising the foreign varieties of the grape, in the open ground, are at least very precarious in this latitude. The fruit is either blighted by mildew, killed by frosts, or does not come to maturity so as to develop all the excellence of its natural flavor. And even our finer native varieties, such as the Isabella, Catawba and Bland's Virginia, frequently do not come to maturity in the neighborhood of Albany, in consequence of the early autumnal frosts, and in some of the higher districts, they seldom ripen well, particularly the last named, which many think the superior variety. We have seen at Utica, the Sweetwater, Chasselas and Munier, in a fine state of bearing, literally loaded with beautiful fruit, and yet we have been assured by an amateur residing there, that the grapes of Utica never attain the high flavor which distinguishes them in warmer and drier situations.

To insure a certain and good crop of this delicious fruit, grape houses may be constructed, in which the vines are trained under glass without any artificial heat, the roots being planted in a border on the south side, and conducted into the house near the surface of the ground. We have constructed a house of this kind, which is 54 feet long, 12 broad, 4 feet high in front on the south, and 12 feet high in the back wall on the north, with two tiers or rows of sashes, each 6 feet by 3 feet 4 inches, sloping from front to rear, in an angle of about 33 degrees. The ends and back of the building are covered with plank grooved together, and the inside is plastered. The total expense was from $120 to $125. We have in it at present, fourteen vines, foreign and native, the number to be reduced as may be found necessary. Small iron dogs are driven into the under side of the rafters which support the glass, at parallel distances, the lower ends having holes through them for the admission of wire. Tinned wire, of a size we believe denominated 12, is run through these holes, longitudinally, the whole length of the house, and at the distance of ten inches below the glass, to which the vines are tied. In the rear, on the inside of the wall, we have the peach, apricot, nectarine and fig, trained as wall fruit. Inside of the building we raise early salladings, which are generally consumed before the vines come into foliage. The principal labor necessary, beyond the ordinary pruning and care of the vines, is to drop the upper sashes, when the temperature will permit, and the sun shines bright, about two feet, at eight or nine o'clock in the morning, and to close them again at three or four in the afternoon.—This permits the vitiated air to escape, while the pure air from without, being specifically heavier, presses in and induces a healthy circulation. By closing the house in the afternoon, the temperature is in a good measure preserved till the next day. The covering of the building tends greatly to repel the severity of the cold. During the severe weather of January, the mercury in the house, as indicated by a self-registering thermometer, was at no time lower than five degrees above zero; while outside it was as low as 27 below, showing the difference made by the protection to be 32 degrees. About the 8th of March, the frost being out of the soil, we sowed cress and lettuce in the house; both were up in from eight to twelve days; the subsequent snows and frost, the thermometer sinking twice to fifteen degrees in the open air, did not affect them, and the cress was fit for the table on the first of April. No artificial heat was applied. The produce of such a house may be estimated by those acquainted with the productiveness of the grape, when they consider that the vines in such a house as this, cover a superficial space of 650 square feet. The cut below exhibits in perspective a transverse section of our grape-house.



There is another method of recent introduction, which it requires some professional knowledge to conduct, and the application of some artificial heat; but which accelerates very much the bearing of the vines, the maturing of the fruit, and probably improves its quality. The vines are cultivated in pots. Pieces of the vine, of two or more feet in length, are coiled in a flower pot, having been first divested of all their buds but one or two at their upper extremity, which are elevated somewhat above the edge of the pot, and the pot filled with fine rich earth.—Or, a single eye may be taken, with two or three

inches of the adjoining stem. The pots are plunged into a hot-bed, and subsequently transferred to the grape-house. Vines thus treated, sometimes have made fifteen or twenty feet of wood the first year, and produced twenty or thirty bunches of fine grapes the second. These methods have been successfully practiced about Boston. The following *particulars of cultivation*, which we copy from the *American Gardener's Magazine*, a horticultural monthly, published at Boston, by Messrs. Hovey, are the memoranda made by the editors of that work during the process of culture.

"*March 9th*, 1833.—Shoots of the Black Hamburgh and White Chasselas grapes were selected, and formed into cuttings of single eyes or buds; this operation was performed by cutting off the wood in a sloping direction, one inch above the eye or bud, and two inches below. By this method of raising vines from single eyes, they produce a greater number of fibrous roots, which enables them to absorb an abundant supply of nourishment from the soil, and their growth becomes proportionably vigorous and strong. It is of importance, in selecting shoots for the purpose of forming the cuttings, to make choice of wood that is well ripened, short-jointed, sound, and with very little pith; such wood is more likely to be obtained from the middle or lower parts of branches of healthy vines, than near the extremities.

After the cuttings were prepared, pots of three or four inches diameter were filled with a mixture of 1-3d light sandy loam, and 2-3ds leaf soil, in which the cuttings were inserted in a slanting position, and each eye covered about half an inch in depth, finishing off with a gentle watering, and the pots plunged to their rims in a moderate hot-bed.

At the commencement, strict attention was paid to the heat of the bed, as it frequently happens, if the heat is too powerful, the eyes will shoot up before any roots have protruded, and are very liable to be destroyed, either by a powerful sunshine, or from too damp an atmosphere.

The cuttings were watered very sparingly until the buds appeared above the surface of the soil; air was freely admitted during the day, and the bed covered at night, in order to preserve an equal temperature as possible.

March 24—being fifteen days from the time the cuttings were put in the pots, they made their appearance above the surface, were shaded from the sun during the middle of the day, until they were well furnished with roots and the leaves began to expand, water was then regularly supplied, and plenty of air allowed, to prevent them from being drawn up weak.

By the *ninth of May*, the vines had grown to the height of from eight to twelve inches, and were shifted into pots of six inches in diameter, making use of the same kind of soil as the cuttings were put in, at the commencement. In repotting such young vines, they should be handled with great care, as the points of the roots, or spongioles, are exceedingly tender, and susceptible of injury; the leading shoots should also be carefully protected, and all laterals removed as soon as they appear. The success depends much upon keeping up the temperature of the bed, which should rather increase than decrease as the vines acquire strength; and, as the least check is very injurious in this early stage of their growth, should the heat begin to decline, it must be renewed by linings; for it is an essential point, that they be continually kept in a vigorous and rapidly growing state, the object in view being to produce one strong shoot for bearing fruit the following year.

June 25th,—the vines were from two to three feet in height, and were again repotted into pots fourteen inches in diameter, and fifteen inches in depth; the soil used, was composed of equal parts of light loam and leaf soil, with the addition of about an eighth part of the whole of very rotten manure. After potting they were removed into the green-house, and placed over the front flue; the shoots were trained upward in a direction corresponding with the slope of the roof, and ten inches from the glass; water was supplied frequently, and occasionally liquid manure, till the wood began to ripen; all lateral shoots were stopped just above the first bud, which bud was retained to prevent the main eyes from starting prematurely.

July 27th,—the vines had attained the length of six feet; and as a sufficient length of wood was now obtained, each shoot was stopped, by pinching off the point; this caused one or two of the uppermost eyes to start, and these were also stopped when they had grown two or three joints. By thus continually stopping the upper laterals, as often as they were produced, the rapid flow of sap upward was checked, and the shoots acquired greater strength and size. When the wood had become perfectly ripened, each vine was cut to the length of five feet, and all the laterals, which had been suffered to grow during summer in order to preserve the main eyes, were cut in close, leaving a straight, clean shoot.

In *November*, the vines were placed under the stage of the green house, where they remained till the first week in March following, and were then placed in their former situation.

March 15th, 1834,—the buds began to open, and by the 30th the fruit buds were distinctly visible; two to four bunches appearing from every eye, with the exception of two or three of the lowest. When the fruit was fairly developed, the shoots were stopped at the second bud above the upper bunch; and *one* bunch only was retained on each shoot, with the exception of two vines; on these, *two* bunches to each shoot were allowed to remain, for the purpose of ascertaining more fully, to what extent vines in pots could support and ripen a crop of fruit. The two last mentioned vines were Black Hamburghs. One of them produced twenty-eight, and the other thirty bunches; but it ultimately proved to be too large a number for them to ripen perfectly. Water was plentifully supplied, as often as the surface of the soil in the pots became dry, and the foliage was syringed frequently. No other care was necessary throughout the season, than occasionally to tie up the bearing shoots, to prevent them from being broken by the weight of the fruit.

Five of the vines, viz. three White Chasselas and two Hamburghs, produced from eighten to twenty-five bunches each, or one hundred and six collectively; and on the 30th of July, the Chasselas grapes were perfectly ripe; the Hamburghs had changed color, but did not arrive at maturity till about the 25th of August. Although from fourteen to twenty bunches are considered by the English cultivators as a good crop for one vine, yet, from the experience which we have had, thus far, in the culture of vines in pots, we have no doubt but that thirty bunches and upwards, of the small growing kinds, as the Sweetwater, Muscadines, &c. may be obtained from each vine, equal in excellence to those grown by any other method. Mr. Stafford, one of the most successful cultivators, says, that all the most delicate sorts are superior, when grown in pots, to any he ever saw grown on the rafters; and he further states, that he has often proved, that a pot placed in the house on the 1st of January, and the same species trained up the rafter, and subjected to the same heat,—the former will ripen its fruit at least a month earlier than the latter.

The annexed plan is one we would suggest to those who wish to erect a small house, which would answer the purpose of growing grapes in pots without great expense.

Fig. 1, is a section of the house, which is ten feet in diameter, eight feet high at the back, and four feeet in front; it is sunk two feet under the surface of the ground, as at (*a a*), if the situation is dry—otherwise it should be on a level; (*b*) is a flue which may commence at either end of the house, as convenient, and should be carried across the end, along the front, and out at the back; (*c*) is a pit in the center, which may be used for many purposes; such as raising lettuces, radishes, &c. or for starting annual flowers, early cabbages, cauliflowers, &c. to be transplanted out in the garden; as it will not be shaded till the vines have made considerable growth; or vines on the coiling system, which will require bottom heat to grow them, might be plunged. The pit is intended to be filled with leaves mixed with manure, or with leaves alone, as at (*d*). The back and ends may be made of common boards, placed eight inches apart, filled in between the two with leaves, hay, sea-weed, or dry tan (*e e*); the front may be of thick four inch plank. (*f*) is a shelf on the back, four feet from the bottom; it should be about fourteen inches wide, and made very strong; on this and the flue, all round, should be placed the pots of vines; those on the flue to be trained up half way the roof of the house, and those on the back shelf to be trained down to meet them, at the same slope of the glass, at the distance of ten inches. The trellis may be made of wire or of wood.

1

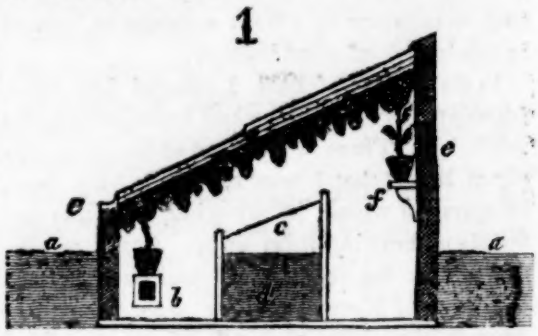


Figure 2.

Fig. 2, is the ground plan. Such a house is not intended for forcing in January or February; as it would require more length of flue, and fires to be kept continually burning, which would be attended with considerable expense & attention. One could however, easily be made for the purpose. In this house it is supposed that, if the vines commenced growing about the 1st of March, ripe fruit would be obtained from the 1st of August to the middle of September, according to the earliness or lateness of the variety. The lower sashes are covered during night, with mats or hay, in March, very little fire would be required to keep up the requisite temperature, which should not be on an average, more than fifty-five degrees the first fifteen or twenty days. The expense of erecting such a house would not be great, and it would contain about fifty pots of vines, which would ripen at least three hundred pounds of grapes."—*Cultivator.*

GEOLOGY.—In the last number of the Tracts we adverted very generally to the course of lectures by Professor Silliman. On Friday evening April 10th, he gave the last, which was a brilliant and interesting exhibition, even superior to any previous effort. How very narrow minded must that man be, who looks upon the face of nature, and sits down in the belief that the hills, the dales, the ocean, & the innumerable tributatary streams, present the same appearance they did at the moment they were called forth into existence by the Creator. Professor Sillman intimated that the earth was probably a ball of fire, at first. That its centre is now an immense mass of liquid fire, all philosophy seems to prove beyond the possibility of doubt. The elevations of the mountains, and the dreadful destruction of the primitive colossal animals, were brought about by the agency of an internal force, which must have been that of heat, seconded by the rush of water in consequence of the derangement of those boundaries, which had once confined it to particular places.—*Scientific Tracts.*

COMMUNICATIONS.

Burying Bees.

BY WILLIAM BACON.

Mr. Tucker—It is two years this spring, since I first commenced bee-keeping. In the outset, I had no knowledge whatever of their management, and it was a stipulation of the bargain with the person of whom I obtained them, that he should, as occasion required, impart to me such facts as his experience would justify, in regard to their culture. This agreement was satisfactorily performed; and, aided by the information thus received, my success, for a tyro's, was such as to create an almost enthusiastic interest in this branch of rural industry.

In the autumn of 1833, I selected four hives, (double the number with which I commenced,) for wintering. Three of these had so limited a supply of honey, that I was advised to bury them, an operation which, in my mind, was little preferable to throwing them away. But I concluded to "try the experiment," and on one of the last days of November, they were "deposited beneath the little mound," where my mind figured them as possessing the interminable repose of "their last resting place." My absence on "the return of spring," that season when dying worms are wooed again to life, and the faded wing of the insect receives new colorings, beautifully wrought, from nature's dye, prevented me the pleasure of witnessing their exhumation, but the person who took them from their temporary sepulcher, (which was done about the 20th of March,) informed me that on their first introduction to the air and light, their animation was as perfect as that usually exhibited by bees in June. He said that he did not find half a gill of dead bees in all the hives. These hives gave swarms earlier and more frequently than the one that remained above ground, during the ensuing summer.

Last fall I concluded to continue "the experiment" with a single hive. The one selected was very light, probably not containing a sufficiency of honey to carry them half through the winter, had they been kept the usual way. In consequence of a rainy season through the last of November, they were not inhumed until December, probably as late as the 10th. They were occasionally fed in the fall, lest their *supply* should not be sufficient to insure a subterranean existence. My faith was as wavering when these last were buried, as on the previous winter, and as often as I looked at the spot where they were interred, I viewed it as the grave of my little insect friends.

They were taken up on the 28th of March, and much to my satisfaction, I found that the second experiment had terminated with the same happy results as the first. Not two dozen were lost, and *new comb was actually formed while they were in their "dark abode."*

My "modus operandi" is as follows. A hole is dug considerably larger than the hive, or hives, in every respect. On the bottom of the hole two sticks of three or four inches in diameter are placed for each hive, and on these the floor board, which should be a sound one, is placed. Another board, (two inch plank is preferable,) is put *on* the hive, and dry straw is as compactly as is convenient placed around it. This, in rainy weather, if the ground is clear from frost, allows the rain to pass freely down, while the space between the blocks furnish a ready reservoir from which it is absorbed by the earth, without offering any injurious effects to the bees. The earth is placed upon the hive in a conical form to turn the water from the hives, the top of which are about four inches below the surface. With respect to the experiment of 1833–4, I cannot say whether the apertures of the hives were closed, but in that of 1834–5, they were *not*. This experiment succeeded, but whether it is the *best* way of proceeding I shall not advise.

I regret that I did not weigh my hives, in both instances, previous to burying and on disinterring them, that the amount of food consumed might have been ascertained. But my experiments were both of them faithlessly tried, and unnecessary ceremonies were dispensed with. The quantity of honey consumed, however, was small, as none but *very* light hives were selected, and their weight in the spring was apparently nearly as great as in the fall. It is my intention in future experiments to mark items more particularly.

In selecting the spot for burying, a dry, and cold, rather than a warm one should be chosen. An individual of my acquaintance buried on the south side of a dry hill, and an entire loss of all thus treated was the consequence. I attributed it, (though perhaps some other defect was the cause,) to such situations being more exposed to frequent freezings and thawings, the insects are subject to more frequent change of temperature, a circumstance injurious to all that comes within its influence. If the situation is such as that the ground will freeze immediately after the trust is committed to it, and remain so until time to "remove the deposits," *to me* it would appear most favorable. Yours, etc. William Bacon.

Richmond, (Ms.) April 23, 1834.

Fertilizing Properties of Lime.

BY HOLKHAM.

Nimium altercando veritas amittitur.—Virgil.
In altercation truth is lost sight of.

Whether R. M. W., like the Pythian Apollo, utters oracles that are sometimes unintelligible to himself, is what we are not called on to determine; but that he has subjected himself to the reproof of using "words without knowledge," is manifest, when he asks us to prove the existence of sulphuric or any *other acid* in soils, which we shall *endeavor* to do abundantly before the close of this essay. We are, however, driven to the necessity of demanding the meaning of his terms:—What is proof? If we say we have seen acid soils, he denies the fact—if others have seen it, they are no authority—if our senses demonstrate it, we have not *common sense*—if our reason deduces it, we are not *rational*. This kind of *argumentum knock down 'em* we are unable to cope with; but we apprehend his position, if he can be said to have advanced any, will be found to be at variance with his reasoning, every line of which goes upon the postulate that carbonic *acid* exists in soils, and almost throughout the whole system of nature—unless, indeed, he has some distinct meaning to attach to the words carbonic acid, carbonic gas, carbonic acid gas, and carbon, all of which he uses as synonyms, and to which use of them we shall therefore adopt our reasoning. We must further acknowledge our ignorance of what he means by the "fecal deposition by the roots," unless he intends to convey the idea of some excrementitious deposit through the lacteals or absorbent vessels, which we apprehend would amount to a contradiction in terms. We are equally at fault in the application of his witty allusion to humus, humic acid, &c. When he gives us the opinion of Virgil as a counterpoise to the use of lime by his cotemporaries, he can hardly mean to adopt *his* practice. We therefore conclude that he means to ridicule the agriculture of the ancients, and to convey the idea that Virgil's senses deceived him; and yet he asks us to square our senses by his own, inasmuch as his do *not* accord with Darwin, Home, De Candolle, and *many others*, who have not "inculcated common sense." We shall not stop to explain to our readers the true meaning of Virgil, because the conclusion of our adversary is a *non sequiter*, but shall proceed to examine his admssions instead of his doubts. We shall there find,—

That lime is a septic; but its septic properties, however promotive of putrefaction, do not furnish food for plants. Anglicised—the putrefactive process is useless to vegetation.

That lime is a solvent; but the solution of animal and vegetable matter is useless—plants probably swallowing food whole, like the anaconda, without even lubricating it.

That lime makes soils more permeable to the atmosphere, and to the roots of plants; but this is likewise useless, because, in penetrating the soil, they find nothing but water, which of course they could do as well without.

That lime can break down vegetable and animal matter, and thus prepare them for the food of plants; but it is *doubtful* whether plants derive their food from the roots; whether there be any specific food or nourishment in soils; of course it is useless to improve them.

That lime may destroy grubs, worms, insects, &c.; but this destruction does not furnish food for plants—*ergo*, their destruction is useless.

That a combination of calcareous with vegetable and animal matter has no existence.

That because lime contains no caloric when effete, therefore its combination with other matters evolves none.

That because ploughing and hoeing pulverizes the soil, therefore—pulverization with lime is useless.

That we have not proved the existence of *sulphuric or any other acid* in soils, and therefore lime is not wanted to neutralize them.

That the existence of Epsom salts under any combination whatever, is in the imagination of a dreaming theorist, and not in the earth.

That carbonic acid gas does not combine with water, and thus furnish food for plants.

That lime does super-saturate itself with moisture, but moisture though necessary is not proper food for plants.

That lime does contain abundance of the food of plants, but it is of no use to apply it.

Nulla falsa doctrina est, qui non permisceat aliquid veritatis.

If this is not reasoning *ad absurdus*, we are

actually at a loss to form any combination of words or phrases that can be so called. If he has not reaped a bad crop of conclusions, or if the use of lime is not powerfully advocated by the advance of such opinions, we despair of ever rendering any aid to our brethren by continuing the discussion. We apprehend, however, it has not been lost upon those who honor us by reading these crude and hasty investigations. We little expected a controversy with an individual who furnished his experiments from the days of the magical and alchymical philosophy, whose reasoning was repugnant to the universal experience and practice of mankind, and who measured his success by the pungency of his wit; and inasmuch as we are unknown to our readers, (unless the publisher has betrayed the confidence we reposed in him,) we cannot be charged with writing for fame or for the attainment of a vain-glorious triumph; for the same reason we are not subjected to the lacerations of irony or the acrimony of sarcasm.

We have derived benefit from our adversary's most pointed conclusion that ammonia was poisonous to plants. It has led us to make some examination of its agency, and the result has abundantly confirmed our position, that, under the modifications and combinations produced by its mixture with calcareous and other soils, it is highly nutritious; while at the same time we admit that, if applied too liberally, like dung, urine, or any other aromatic manure, it literally destroys vegetation. Among other facts, the manure almost exclusively used by the Peruvians, derived from the Guano Islands, and which enables them to raise large crops of maize upon land that without it is comparatively sterile, is not unworthy of notice. These Islands are scattered along the Peruvian coasts, and are almost entirely composed of a bed of soft compost, which employs vast numbers of coasting vessels in its transportation. So valuable is the article, so powerful its operation, so exhaustless its quantity, that it has superseded every other fertilizing material. Naturalists were long under the impression that these Islands were composed entirely of a mass of bird's dung, accumulated during a succession of ages from the swarms of albatross, cormorants, flamingos, cranes, and other aquatic birds, of which the shores of the Pacific have been long a chosen residence. These opinions continued until Baron Humboldt explored these extensive regions, and furnished his friends, the celebrated chemists Fourcroy and Vaquelin, (whose experiments have since been confirmed by Klaproth,) with a portion of it for analysis. The result was,

Silica and siliceous sand,	32.50
Water and inflammable animal matter,	28.75
Oxalate of lime,	12.75
Phosphate of lime,	10.00
Ammonia,	16.00
	100.00

It will hardly be contended that sand fertilized the sandy plains of Peru; and we shall leave to our antagonist his choice between the lime and the ammonia. We shall close this part of the subject for the present with the remark, that the carbonate of ammonia has a greater affinity for carbonic acid gas, than even the carbonate of lime; is more soluble in water, and effervesces more violently when treated with acids.*

But we are asked to prove the existence of *sulphuric, or any other acid*, in soils. He is not quite bold enough to deny their existence, and say there is no such thing as sour land. We shall not attempt a definition of acids, because they are undefineable except by their properties. The opinion of Lavoisier, that oxygen is the universal acidifying principle,† has, we believe, been adopted by every succeeding respectable chemist. His Memoir presented to the Royal Academy of Sciences at Paris, maintains that by combining with all combustible bases, without decomposing them, it converts them into acids. A mere enumeration of the number of acids which exist in the earth, under various combinations, would require an extra number of the Farmer; so extensive and voluminous have they become, that chemists have been obliged to follow the other systematic arrangements of natural things, and arrange them into genera, orders, and classes. Thus we have Genus 1—Acids with a simple base, such as sulphur, carbon, &c., of which we can furnish more than twenty. Genus 2—Acids with a combustible base, such as acetic acid, benzoin, amber, cork, tartar, &c. of which we could enumerate about twenty-five; and thus we could proceed until a very large proportion of the chemical nomenclature was exhausted. But sulphuric acid seems to have been pitched upon by our adversary for the express purpose of exposing his ignorance of the very first principles of agricultural chemistry. Next to carbonic acid, it is, perhaps, the most universal. The whole class of sulphates, including sulphate of lime, sulphate of alumine, sulphate of soda, sulphate of potash, &c. &c., like whole classes of agricultural philosophers, must be swept out of existence before he can rid the earth of sulphuric acid. Whether it exists at all in a *separate state*, was long disputed between Davy and Dalton,‡ and the controversies of such men should operate as a caution to men of less mental calibre against embarking in it; at all events we think it rational, from an examination of the arguments between them, to conclude that it certainly exists in a combined state. Sulphate of lime consists of sulphuric acid, 75 parts, lime 55, and water 34.‖ According to Lord Dundonald, it combines both with alumine and calcareous matter, and renders both useful in vegetation.

Carbonic acid is nothing more nor less than genuine charcoal, or carbon, but the carbonate of lime must undergo two disuniting processes before the charcoal can be developed or produced —the carbonic acid must be separated from the lime first, and the oxygen of the carbonic acid must be separated from its base; the lime is detached from the acid by phosphorous. To decompose the carbonic acid, we must have recourse to combined affinities, without which it cannot be effected. After being separated from its oxygen, it has been reduced to a black pulverulent powdered charcoal by Tenant, Pearson, Priestley and others, (Phios. Transactions for 1791–2.) There is no substance in which it exists in so large a proportion as in the carbonate of lime; but almost every natural spring, as it rises from the earth, contains a portion of it; hence their usefuluess in irrigation is made more manifest on the spots where they rise than at a distance from it. The vegetation of plants produces it; hence alternate cropping is better than dry summer fallows. The spontaneous decomposition of animal and vegetable matter produces it in still greater abundance; hence the application of such substances produces fertility—fermentation and putrefaction being carbonating processes, both of which our opponent thinks unnecessary; but the largest store that exists, is the enormous quantity solidified in the immense beds of limestone, chalk, and calcareous stones, with which the earth abounds, forming, as we before stated, 40 per cent. of their weight, and sometimes more.

But the most surprising mistake made by our agricultural chemist, is, that carbonic acid gas will not combine with water, when every chemist to whom he can refer, and who has investigated the subject at all, will give him, *without one exception*, a different result. It is truly surprising that a man will publish such statements, when an experiment that would scarcely occupy five minutes, would enable any child to detect him. "Water at about 50° of temperature will absorb by mere agitation nearly its own bulk of this gas; but by the combined action of pressure and agitation three times as much."* The very escape of it from seltzer and soda water should have taught him better, because they are never made in any other way than by combining these fluids. It is only by the combined action of pressure and agitation that such waters are generated. It is true, the carbonic acid escapes when exposed to the influence of the atmosphere, and this is the true reason why it is applied to land in the shape of lime where it is solidified.

If he will fill a vessel with water, displace about half its contents by throwing up gas, then press the finger close against the mouth of the vessel and shake the half filled vessel violently, he will find so much of the gas absorbed as to create a vacuum, and a strong external pressure of the atmosphere will be felt on the finger that shuts the mouth of the vessel. Cold water will absorb much more than warm. We know that this gas will not escape from cold water if a loose empty bladder is used instead of a cork to keep out the air, although the bladder furnishes abundance of room for the gas to expand itself: and as the bulk of all æriform bodies is inversely as the pressure to which they are exposed, so the quantity absorbed is directly as the pressure; but in these experiments it must be remembered that although in liquid carbonated water, the application of the first portion of carbonic acid will precipitate the lime from the solution, an additional quantity will again dissolve it.†

It seems to be admitted on all hands that carbon, either in its fluid or gaseous state, constitutes a large portion of the food of plants. The controversy then is, does the carbonate of lime

* See Ureman's Chemistry, vol. II, p. 31, where he quotes Priestley, Morveau, Davy, Fourcroy, and Vaquelin—Annals of Chemistry—Davy's Chemical Philosophy—Philosoph. Transac., &c.

† Lavoisier's Elements of Chemistry—Priestly on Air, vol. 2.

‡ Dalton's new system of Chemical Philosophy.

‖ Elements of Agricultural Chemistry.

* Philosophical Transactions for 1803—W. Henry's Experiments.

† Bergman—Kirwan on Manures—Philosophy of Gardening.

part with this food to the plant? or, does it withdraw it? That the former conclusion is the truth, is not only evident from the experiments of Priestley, Davy, and Darwin, but from every analysis of plants that has ever been attempted by any vegetable phisiologist. They all concur in the opinion that the solid fibers consist principally of carbon, and their fluids of water. Carbonic soil is that sort of earth in which there is a considerable portion of decayed vegetable matter. Wet lands, where any coarse vegetable matter has been suffered annually to become putrid, are mostly of this kind, and likwise such ground as has been much enriched by manure, as old gardens, &c. That carbon itself is soluble in water, has been demonstrated, (Philosophy of Gardening,) and that calcareous substances generally are in part the constituents of vegetables, we apprehend no philosophical farmer, except our antagonist, even *doubts*. HOLKHAM.

Propagation of Fruit.

BY R. S.

There is not naturally a propensity in the human mind to take much pains in raising fruit, without some stimulating or exciting agency. The mind must be excited to some object before it will produce any unusual effect. The subject before us, no doubt, has been frequently brought before the readers of the Genesee Farmer, and may have been presented in such a light as to render it useless for me to attempt any addition thereto. But, however, even if this be the case, there may be some who did not give the attention to it which its importance demands; and it may be well to stir up their minds by way of remembrance—not that I possess or profess any superior knowledge on this subject—but by frequently conversing on these things we retain them in our memory, and are prepared to impart such information relative to them as is required.

It is not a little singular indeed, after all that has been said and done, that there is such an astonishing apathy in relation to the cultivation of fruits, the luxuries of which add so much to the comforts and conveniences of life. However, by the aid of an exciting agency, such for instance as the Farmer, we see that people begin to take an interest in this subject, and the means are facilitated for acquiring practical knowledge relative to this and every other subject to which such a journal is devoted.

The propagation of fruit, as practiced in different ways, has materially benefitted all those who are engaged in the useful occupation of raising it. Grafting and inoculation are the most successful methods now in operation for propagating fruit. And to these two then I shall confine myself, to make some remarks and observations for the consideration of all who are concerned.

1st. *Grafting.*—This may be successfully practiced on apples, pears and plums, and I think to better advantage than by inoculation. The modes of performing this operation are different, but I have generally given preference to what is called cleft grafting. The mode of procedure is as follows: After the stock is chosen, select a smooth place and cut it off—even the top with a knife; this being done, make a slit near two inches deep down the middle of the stock, with a knife prepared for the purpose; then prepare the scion, (taken from a vigorous shoot of the foregoing year, which should be cut in February,) sloping it on each side from a bud or eye, but leaving it thinner on that side which goes into the stock than on the outside, so that it may conform itself to the slit of the stock; then place the scion in the stock so that the inside bark of both may come exactly together. After this is done, the wounds of the stock are covered with an application of wax. The scions should be left with two or three eyes on them, and in case the stock be large, two of them may be inserted in one cleft, one on each side Let not the scions be loose nor pinched, but a right temperature is necessary for their ready germination.

I have endeavored to render the method so plain, that it shall be the excuse of no one for not adopting it, for every one that has not good fruit may have it by a little exertion of their own. The only remaining difficulty is making the wax, and this can be done with but very little expense.

Take 5 lbs. rosin,
2 " beeswax,
3 " melted tallow.

Melt them together, and turn it off into cold water, and work it till hard. This quantity of composition will be sufficient to set a number of thousand grafts. The means have been greatly facilitated for the making and application of this compositon, from what they were when the old dirty method of using clay was practiced. By a little attention, a person who has never practiced it may perform the operation with complete success.

The best time for grafting is when the tree is about an inch through, taken off close to the ground. Although apples do well when put into the top of large trees, but pears treated in this manner, my experience satisfies me, will never answer, because they will not unite firmly; hence their aggeneration cannot be effected, and when loaded with fruit they are apt to blow off. Undoubtedly the most suitable tree for the pear is the thornapple. The aptitude of their fixidity to this, as far as my observation has extended, is not equaled by any other tree. However, if these cannot be procured, small apple trees will answer, if grafted close to the ground, and the earth raised around them. This may be performed in April or May.

2d. *Inoculation.*—This method of propagation, it seems, is better adapted to peaches, nectarines, plums, &c., than grafting. I will give a description of a method as most successfully practiced: "In August, take off a vigorous shoot from the tree to be propagated; then make choice of a stock about three or four years growth, and in a smooth part of it make a downright slit in the bark a little above an inch long, and another crosswise at the bottom of that, to give way to the opening of the bark; then with a penknife gently loosen the bark from the wood on both sides, beginning at the bottom; then prepare the bud by cutting it off, entering pretty deep into the wood, as much above as below the bud, to the length of the slit in the stock; after the bud is thus prepared, with the point of the knife and the thumb take out the woody part of it, carefully preserving the eye of the bud; then put the bud in between the bark and the wood of the stock at the cross slit, leading it upward by the stalk where the leaf grew till it exactly closes; then bind it about with coarse woolen yarn, the better to make all parts close regularly, and the bud incorporate with the stocks, and the operation is done. The bud will be incorporated in about three weeks time, when the yarn should be loosened that it may not gall the bud. All buds should be taken from a vigorously growing shoot, and used immediately."

The choicest and the rarest varieties of fruit may be produced in a very short time by the above methods of treatment, and in fact I have known instances of grafts bearing the same year they were inserted—but they generally begin to bear in about three years. And who but he who has no taste for nature's richest productions would not even try the experiment? I have no doubt but all those who undertake the operation, will perform it with complete success, and ultimately be compensated for all extra expense and trouble.

We have a kind of apple, the value of which in the summer, (for they are not good until then,) is from one dollar to one dollar and fifty cents, and we have kept them a year from the time they were gathered. They are called by the name of Rock Apple. They are pleasant flavor and annual bearers, and I think they might be profitably recommended to all orchardists. I mention this circumstance only to show the propriety and utility of propagation. As the season for grafting has approached, I hope the fruit growers of this country will avail themselves of this opportunity for having their plantations stored with the choicest varieties of fruit. R. S.

Potatoe Culture.

Mr. E. P. Roberts, the new editor of the Baltimore Farmer & Gardener, introduces Gen. Barnum's communication on the Culture of Potatoes, published in this paper two weeks since, with the following remarks:

We give place to-day to a most valuable essay on the cultivation of Patatoes, by Mr. *A. W. Barnum* of *Vergennes, Vermont*, for which we bespeak an attentive perusal from every reader. There is, perhaps, no crop so irregular in the amount of its yield; none, when properly managed, which, in good seasons, is more generous in its rewards to the cultivator; and certain we are, that in the whole family of root vegetables, there is not any which can compare with it in the degree of benefit which it has conferred on mankind. Such being the case, any plan of culture calculated to ensure large and uniform crops, should be hailed as a desideratum greatly to be desired. Mr. Barnum, in his paper, has treated the subject most thoroughly—from the soil to its preparation for, and planting, the mode of culture, the kind and method of applying manures; in short, every thing connected with the subject from the breaking up of the ground to the housing of the potatoes, is treated in a clear and comprehensive manner, and sufficiently concise to be of general utility. The plan of dividing his method of cultivation under appropriate heads, is peculiarly happy, and will afford great facilities in after reference, as any particular branch may be recurred to without the least difficulty.

It will be seen that, although 200 bushels to the acre exceeds the average yield, and is considered a fortunate crop, Mr. Barnum advances the opinion, that, by pursuing his course, in ordinary seasons, on good soil, a crop of from 800 to 1200 bushels to the acre, may be rationally calculated upon. If such results be practicable, or even the moiety of them, may we not ask, is

not every planter and farmer invoked alike by duty and interest, by the comfort of those dependent on him, and by a proper regard for the condition of his milch cows and other cattle and stock through the winter, to make a fair and full experiment? Of one thing he may be morally certain, that if he should be disappointed in the quantity of his potatoes, he will be gratified in witnessing the most beneficial effects upon subsequent crops, so that should he fail in being compensated in the first instance, he will be more than remunerated in the after fruitfulness in his soil.

After a careful reading of the process laid down by Mr. Barnum, we must in perfect candor say, that it comes most strongly recommended to us by the impress of common sense and of nature; qualities of no mean import, in our humble estimation. His manner of applying his manures, of top-dressing, his method of preparing the ground, of laying off the rows, so as to give free scope to the light and air, his plan of hoeing or hilling, which consists in bringing fresh earth from ditches sufficient to raise a hill of about two inches around the plant, (which by the way, is novel in this quarter,) so as not to disturb the young and tender roots, while growing, by scraping the earth from between the drills, together with the suggestions, which he throws out upon the subject of topping, and the proper time for gathering the roots, are judicious and worthy of all consideration. But we will not forestal the reader; and, therefore, refer him to the article, which will be found to be, in itself, a complete manual of potatoe culture.

Seed Corn,

Should be first soaked, say 12 hours, in water heated to near the boiling point, to saturate the grain, and induce early germination; then having put half a pint or more of tar in an iron dish, with a quart or two of water, heat it till the tar is dissolved or incorporated with the water, when the whole may be turned on to the already soaked seed, which is then to be well stirred The flavor of the tar thereby strongly impregnates the seed, and prevents the birds or squirrels taking it. Then take the corn from the water, and mix with it as much gypsum as will adhere to the grain; and put six or eight kernels into a hill, reducing the number of plants at the first hoeing to three or four, and them the most thrifty and promising. This will require six extra quarts of seed to the acre, and the consequent increase of product, in consequence of each hill having its compliment of stalks, will not be less than six bushels. So effectual is this method of preparing seed in saving the crop from the depredations of birds, that we have dispensed altogether with the use of scare-crows. Last year, one row in a corn-field was accidentally left unplanted. It was afterwards planted with unprepared seed. The crows took up most of it, while we could not discover that they had taken a hill planted with the tarred seed.

A correspondent inquires at what distance the plants should remain in the drill system of culture, where there are two or three rows in a drill. We cannot prescribe, but recommend from six to twelve inches, according to the richness of the soil, and the variety of the corn cultivated—the richer the soil, and the more dwarfish the growth of the stalk, the nearer the plants may be left. The more rich the pasture, and the smaller the animals which are put upon it, the greater number will it support.—*Cultivator.*

Importation of Silk.

In a discourse lately delivered before the American Institute, it was stated that "there were annually consumed in the United States more silk than all the wheat, rye, oats, flaxseed, biscuit, potatoes and hops, which are exported will pay for, by nearly two millions of dollars." There is no doubt of the truth of the statement, and it furnishes an argument in favor of national encouragement to the culture and manufacture of silk which even sophistry cannot resist. —*Silk Culturist.*

List of Payments

For the Farmer from April 23, to May 15, 1835.

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Rochester Prices Current.

May 12, 1835.

ASHES—Pots, per 100 lbs $3,60.
Pearls, $5,00.
APPLES—Green, per bushel, $2,00.
Dried, $1,75
BARLEY—Per bushel, $0,47.
CIDER—$3 to $5,00 per bbl.
CHEESE—7 to 8 cts. per lb.
BEEF—Fresh, $4,50 a $5,00 per 100 lbs.
Mess, per bbl. $10.
Prime, $7.
Smoked, 8 cts. per lb.
PORK—Mess, $15 a $16,00.
Hams, 8 cts. per lb.
TALLOW—8 a 10.
LARD—9 a 10
POTATOES—62½ cts. per bushel.
FLOUR—Superfine, $6 50.
Fine, $6,25
WHEAT—$1 25 a 1,31 per bushel.
OATS—56 a 62½ cents.
CORN—87½ a $1,00.
HOPS—16 cts. per lb.
HAY—$20 a $25 per ton.
BUTTER—16 per lb.

150 lbs. Lucern Seed,

OF fine quality and proved vitality, for sale at a reduced price, at the Rochester Seed Store.

Also, A few thousand SILK WORM EGGS, just received and for sale as above.

REYNOLDS & BATEHAM.

May 1, 1835. may 2-tf

Wanted,

A PERSON well qualified to take charge of one of Andrew's Patent Shingle Mills. A person that can bring satisfactory testimonials of character and capability, will meet with a good situation, constant employment, and cash down. None need apply but those that are well acquainted with the management of circular saws. For further particulars inquire (if by letter, post paid,) of J. G. STOCKLEY, Allanburgh Mills, Thorold Post Office, Upper Canada. ap 11-5t

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A SPLENDID assortment of Annual, Biennial and Perennial Flower Seeds, put up in small papers at 6 cents each, or 20 varieties for $1, and 100 varieties for $4, for sale at the Rochester Seed Store.

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A Valuable Farm For Sale.

THE valuable FARM owned and occupied by Elias Beach, 4 miles west from the city and situated directly on the Erie Canal, containing 240 acres of good wheat and grass soil, well watered, with good house, barns, out houses, &c. Five thousand dollars will be required in cash, and the balance may remain on bond and mortgage for a term of years. Title indisputable. The price per acre may be learned on inquiring of JAMES H. WATTS, at No. 3 Exchange-street, Rochester, and the owner will at all times be ready to give further particulars on the premises. ap 18-tf

Robbins' Patent Planting MACHINE.

WITH this machine Corn, Beans, Peas, and all seeds of an oval shape can be planted with more system and correctness than can be done in the usual manner of planting with the hand and hoe.

One acre of ground can be planted, placing the seeds any given distance apart, from two or more inches, and rows two and a half feet between, in three hours time.

Machines can be had by applying to C. N. BEMENT, Treasurer of the State Agricultural Society, Albany; BUSHROD BUCK, Lanesborough, Berkshire county, Mass.; and DANIEL I. BUCK, Lowville, Lewis county, agent and proprietor for making and vending said machines, at all of which places it is intended to keep a supply on hand.

Lowville. March 25th, 1835. ap 14-tf

Rochester Seed Store & Horti- CULTURAL REPOSITORY.

No. 5 Arcade Hall, next door but one to the Post-Office.

REYNOLDS & BATEHAM, having completed their assortment, now offer to the pubiic the best and most extensive collection of Garden, Field and Flower Seeds, ever before offered in the Western country.

Their stock is entirely new, and having been purchased directly of the growers and importers, the vitality and purity of the seeds are expressly guaranteed. Farmers and Gardeners will find a great variety of new and valuable Seeds not heretofore introduced into this section of country.

They have also an assortment of superior Horticultural Implements, Books, &c.

Merchants and others supplied with assortments of Seeds for retailing at a liberal discount.

All orders for Seeds, Fruit or Ornamental Trees, Shrubs, Grape Vines, Green-House Plants, &c. &c. by mail or otherwise, will meet with prompt attention.

Cash will at all times be paid for Grass and Clover Seed, Peas, Beans, &c.

A large and comprehensive Catalogue of the Establishment is just published, and will be furnished gratis on application mar 19

Monroe Horticultural Garden & NURSERY.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.

Greece, *Monroe* co. N. Y. Sept. 13, 1834.

From the New York Farmer.

Remarks on the Horn Distemper.

Animals of the forest, guided by the principles of instinct, regulated by the dictates of nature, and uncontrolled by man in their food, air, rest, and exercise, are seldom affected by disease, while domestic animals of all countries and climates, more directly under the control and dominion of man, are subject to a variety. There are but few instances on record of prevailing diseases among the different tribes of wild animals, while every appropriate periodical informs us of diseases and their remedies of the whole class of those more immediately under the direction and government of man. Having lately had a fine young cow of the Short Horn Durham breed, afflicted with the disease called Horn Distemper, and she having thoroughly recovered, I thought it would not be improper to offer for publication in your valuable journal a few remarks on the disease, and my method of its treatment. It is evident this distemper effects the internal substances of the horn, usually called the pith, insensibly wastes it, and eventually, if suffered to make its progress unmolested, leaves the horn entirely hollow. The pith is a porous, spongy bone, whose cells are covered with an unctuous matter, and filled with numerous small blood vessels, is overspread with a thin membrane, appears firmly united to the head, and in a healthy animal completely fills the horn, which only serves as a sheath. In horn distemper this bone is partly, at others wholly wasted, commencing at the extremity of the pith. The usual symptoms are a general dullness of the countenance, a tardiness in moving, a formation about the eyes of a yellow viscous matter, failure of appetite, a desire to lie down, a giddiness and frequent tossing of the head, often a stiffness of the limbs is observable, and in cows the milk fails. Let the other symptoms be what they may, there is always a sudden wasting of the flesh. The horn always loses its natural heat, and a degree of coldness is manifest to the hand by grasping it firmly. When only in one horn, as is often the case, there will be a very sensible difference in the feeling. If upon examination the horn is cold, we need not doubt the presence of the malady, yet without an acquaintance with some of the preceding signs, we might not be induced to examine the horn, or suspect the evil. As soon as the discovery is made, a hole with a ten-penny nail gimblet should be immediately bored underside the horn, three or four inches from the head. If the gimblet passes through the inside without resistance, it may be bored as low as is judged the hollowness extends; this, generally, if done in season, is all that is necessary. These holes should, however, be kept open, that a free discharge may be encouraged, and a communication be kept up with the air. Bubbles are continually forming at the orifice, through which a thin fluid oozes after the horn is bored. This seems to indicate an internal fermentation. Putrid matter may be formed on the periasteum, and entering into the interstices of the bone, may dissolve the oily substance, and form a fluid so putred and corrosive as to dissolve even the bone itself. From the sensible relief that an opening into the horn gives the beast, it is more than probable that the distress manifested arises from compression, occasioned by the expansion of the putrid and confined air within, rather than from an effect produced on the blood and juices. In aggravated cases the inside of the horn should be thoroughly syringed two or three times a day with salt and water, soap suds, pepper and vinegar, or any simple cleansing material, (never apply spirits of turpentine, as the manner of some is.) If there appears to be much inflammation about the head, a moderate bleeding in the neck would be beneficial. But when the distemper has communciated its effects to the brain so as to produce a high degree of inflammation, it is much to be doubted whether any mode of treatment would afford effectual relief.

Milch cows are more liable to attack than any other description of horn cattle. It is not common among oxen; I never knew a bull to have it; steers and heifers are thought to be exempt from it under three years of age. It cannot be considered as contagious. Neat cattle are subject to a disorder commonly called Tail Sickness, which is a wasting of the bony substance of the tail, and if not cut off above where the defect reaches, often proves fatal. It frequently accompanies the horn distemper. FARMER C.

Manlius, February, 1835.

Extract of a letter to the Editor of the Ohio Farmer, dated Hinckley, Ohio.

"I am not a farmer, nor the son of a farmer, yet I have a remarkable foundness for the business, and were I able I would relinquish all other occupations and follow farming for a living, for I consider it the most honorable and independent calling a man can follow. When I speak of being able, I allude to infirmity of body, and not to want of property; for almost any man can obtain a *little land;* and a little *well* tilled will afford the means of subsistence in abundant profusion. As a proof of this assertion, I would mention that a friend of mine, the past season, raised 30 bushels of onions and about 40 bushels of ruta baga on a piece of ground 2 rods wide and eight long, *i. e.* 16 square rods. He did it in this manner. *Early* in the spring he set out his onions at the distance of 15 inches from row to row; and on the 25th of June he sowed his ruta baga seed between every other row, and by the time they needed hoeing his onions were fit to pull, which was done, and the ground was occupied by the ruta baga alone. This, friend, (who is a subscriber to the Genesee Farmer,) raised 70 bushels of Indian corn on an acre of land, which, without good husbandry, would not yield 30. He finds *profit* as well as pleasure in taking an agricultural paper. I saw in his garden, in July, *ripe* pumpkins, melons, &c. raised in the following manner: Early in the spring he filled a tub or half barrel two thirds full of horse manure—over that he put 4 or 5 inches of earth; he then scooped out turneps, leaving nothing but the shell, filled them with earth, put in each sufficient seed for a hill, and set them out in the tub, which was placed on the south side of his house. The fermentation of the manure, aided by the sun, produced a genial warmth, which caused the seeds to grow rapidly—cold and frosty nights he would cover over the tubs with a blanket. When danger from frost was over, the turneps were taken up and transplanted in the garden—the turneps rotted—the plants grew apace, and long before his neighbors thought of such a thing, his eyes and *palate* too were gratified with delicious ripe fruit."

The American Horse.

In the extensive territory and varied climate of the United States, several breeds of horses are found.

The *Canadian* is found principally in Canada and the northern states. He is supposed to be of French descent, and many of the celebrated American trotters are of his breed. We will speak of some of them when we describe the paces of the horse.

The *Conestoga* horse is found in Pennsylvania and the middle states—long in the leg and light in the carcass—sometimes rising seventeen hands—used principally for the carriage, but when not too high, and with sufficient substance, useful for hunting and the saddle.

The *English* horse, with a good deal of blood, prevails in Virginia and Kentucky; and is found to a greater or less degree in all the States. The Americans have, at different times, imported some of the best English blood. It has been most diligently and purely preserved in the southern states. The celebrated Shark, the best horse of his day, and equaled by few at any time, was the sire of the best Virginia horse; and Tally-ho, a son of Highflyer, peopled the Jerseys.

In the back settlements, and in the southwestern states, is a horse resembling the wild horse of the Pampas, already described, and evidently of the same origin.

The Flemish and Dutch Horse.—The *Flemish and Dutch* horses are large, and strongly and most beautifully formed. We are indebted to them for some of the best blood of our draught horses, and we still have frequent recourse to them for keeping up and improving the breed. —*Library of Useful Knowledge.*

New Spinning Wheel.

We examined, the other day, an exceedingly simple contrivance for spinning wool or worsted, or for doing any thing else that is usually done upon the common domestic spinning wheel, invented by Capt. L. Norcross, of Dixfield, Me. The machine is small, light, and portable. It may set upon a table and the spinner set down down by it, and perform her operations without traveling back and forward and making a long journey of steps while spinning a skein, as in the old system. Two posts about a foot high are put upon a piece of plank, say two feet long and a foot wide, a shaft passes from one post to the other. On one end of the shaft is a crank, and on the other a cog wheel, say 8 or 10 inches diameter. The spindle is made in the usual form, but instead of a common *whirr* or pully for the band to play on, it has an endless screw, into which the cogs of the wheel match. Thus by turning the crank the spindle is made to revolve. The speed of the spindle may be regulated proportioning the machinery according to the wants of the operator. Mr. Norcross has secured a patent for it, and we doubt not will be well rewarded for his ingenuity.—*Maine Farmer.*

Stump Lifter.

Mr. Norcross has also invented a new machine for lifting out stumps, and we wish many of our farmers would use this or some other, for the purpose of ridding themselves of the multitude of these incumbrances, which are so plenty in all new countries. Did you ever make a calculation how much land you would of course gain by pulling them out?

Mr. Norcross' machine consists of a large screw placed in a large nut, and this nut is affixed to legs like those of a surveyor's compass. These, being sufficiently strong, are placed above the stump, and it is then grappled to the screw by chains or hooks. A large sweep like that used in some old fashioned cider mills, having a nut to fit the screw, is put upon the screw, and horses or oxen hitched on to the other end, and the stump elevated by driving round the sweep. A patent is also secured on this, and as we before observed, we hope it will be the means of stirring our farmers who have more stumps in their way than they want, to use this or some other contrivance for *ousting* them.—*Ib.*

Food of the Silk Worm.

Though the foliage of the mulberry is the natural food of the silk worm, and the only food on which they can make silk, yet there are various other plants, on the leaves of which they will feed and live. The more common are the lettuce, rose, bramble, dandelion, hop, hemp and fig. It is also said they will feed upon the leaves of the currant. The worms may therefere be fed with these leaves, when the leaves of the mulberry cannot be had, for the purpose of keeping them alive until they can be procured. It is supposed there is a resinous matter in the leaves of the mulberry, which, undergoing a change in the stomach of the worm, enables it to make silk.—*Silk Culturist.*

Melon.

Great care should be taken to plant the various sorts of melons at a great distance from each other and from cucumbers and other vines, otherwise the best kinds are liable to be spoiled the first season. Melon seeds soaked 24 hours in a decoction of tobacco and water, will be effectually protected against bugs.—*Parkhurst's Catalogue.*